## CPC COOPERATIVE PATENT CLASSIFICATION

## F16P SAFETY DEVICES IN GENERAL; {SAFETY DEVICES FOR PRESSES }

## **NOTE**

Attention is drawn to the following places:

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A01D 75/18 Harvesting machines
A01F 21/00 Threshing machines or baling presses
B02C 23/04 Crushing or disintegrating machines
B21B 33/00 Rolling of metal
B21D 55/00 Working sheet metal or tubes, rods or profiles
without essentially removing material
B23B 25/04 Turning-machines
B230 11/00 Machine tools
B24B 55/00 Grinding or polishing machines
B25J 19/06 Manipulators
B26D 7/22 Cutting machines
B27G 19/00 Wood saws
B65B 57/00 Packaging machines or apparatus
B65G 43/00 Conveyers
B65H 26/00 Web-advancing mechanisms
B65H 63/00 Handling or winding of thin or filamentary material
D01G 31/00 Treatment of fibres
D01H 13/14 Spinning or twisting
D05B 83/00 Sewing machines
F21V 25/00 Lighting devices.
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## Guide heading: Devices protecting or preventing injuries to people

F16P 1/00	Safety devices independent of the control and operation of any machine (protective
	devices for the eyes or ears, worn on the body or carried in the hand, A61F 9/00, A61F
	11/00)

F16P 1/005 . {Guards for rolls in calandering or other roll machines, e.g. nip guards, finger guards }

F16P 1/02 . Fixed screens or hoods

F16P 3/003

F16P 1/04 . Screens or hoods rotating with rotary shafts

F16P 1/06 . specially designed for welding

F16P 3/00 Safety devices acting in conjunction with the control or operation of a machine Control arrangements requiring the simultaneous use of two or more parts of the body (F16P 5/00 takes precedence)

F16P 3/001 . {Safety devices for guarding the human operator of punch presses or like machine tools performing an opening and closing travel }

• . {by application of a specific control arrangement, e.g. specific switching systems or two-hand control }

F16P 3/005 ... {having a movable screen or a sensor influencing the switching system }

F16P 3/006	{having a screen moving with the machine and moving the operator out of danger, or restraining the operator, without influencing the switching system }
F16P 3/008	• {Devices for directly stopping or interrupting the drive or gear in case of danger to the machine, e.g. devices with clutches }
F16P 3/02	<ul> <li>Screens or other safety members moving in synchronism with members which move to and fro</li> </ul>
F16P 3/04	<ul> <li>for machines with parts which approach one another during operation, e.g. for stamping presses</li> </ul>
F16P 3/06	in which body parts of the operator are removed from the danger zone on approach of the machine parts
F16P 3/08	<ul> <li>in connection with the locking of doors, covers, guards, or like members giving access to moving machine parts</li> </ul>
F16P 3/10	in which the operation of locking the door or other member causes the machine to start
F16P 3/12	with means, e.g. feelers, which in case of the presence of a body part of a person in or near the danger zone influence the control or operation of the machine (F16P 3/08 takes precedence)
F16P 3/125	<ul> <li>{Guards for rolls in calandering or other roll machines, e.g. nip guards, finger guards }</li> </ul>
F16P 3/14	the means being photocells or other devices sensitive without mechanical contact
	WARNING
	Subgroups of $\underline{F16P\ 3/14}$ are not complete pending a reorganisation, see also $\underline{F16P\ 3/14}$
F16P 3/141	{ using sound propagation, e.g. sonar }
F16P 3/142	{ using image capturing devices }
F16P 3/144	{ using light grids }
F16P 3/145	{ using magnetic technology }
F16P 3/147	{ using electro-magnetic technology, e.g. tags or radar }
F16P 3/148	{ using capacitive technology }
F16P 3/16	with feeling members moved by the machine
F16P 3/18	. Control arrangements requiring the use of both hands
F16P 3/20	for electric control systems
F16P 3/22	for hydraulic or pneumatic control systems
F16P 3/24	for mechanical controls
F16P 5/00	Emergency means for rendering ineffective a coupling conveying reciprocating movement if the motion of the driven part is prematurely resisted
F16P 5/005	• {Overload protection by energy absorbing components, e.g. breaker blocks, shear sections }

F16P 7/00 Emergency devices preventing damage to a machine or apparatus (F16P 1/00, F16P 3/00, F16P 5/00 take precedence; indicating means, see the appropriate classes)

F16P 7/02 . by causing the machine to stop on the occurence of dangerous conditions therein (devices in bearings affected by abnormal conditions  $\underline{\text{F16C}}$ )